WHAT IS CLAIMED IS:

1. A system comprising:

a source of gas, the gas including NOx; and

filter material including a catalyst and an alkali for reducing levels of NOx in the gas.

2. The system of claim 1, wherein the alkali is coated on support particles, and wherein the coated support particles are mixed with the catalyst.

3. The system of claim 1, wherein the catalyst is coated on particles of the alkali.

4. The system of claim 1, wherein the alkali is coated on particles of the catalyst.

5. The system of claim 1, wherein the catalyst and alkali are layered.

6. The system of claim 1, wherein the filter material further includes chromium oxide.

7. The system of claim 1, further comprising air conditioning apparatus downstream the filter material.

8. The system of claim 1, further comprising a first support structure for the catalyst and a second support structure for the alkali, the first and second structures being spaced apart.

9. The system of claim 8, wherein the catalyst and alkali are independently optimized.

10. The system of claim 8, further comprising a CATOX, wherein the catalyst and first support structure are integrated with the CATOX.

11. The system of claim 8, further comprising air conditioning apparatus midstream between the first and second support structures.

12. A method of operating the system of claim 8, wherein the catalyst and alkali are operated at different temperatures.

13. The system of claim 1, wherein the catalyst includes manganese oxide and copper oxide, and wherein the alkali includes potassium.

14. The system of claim 1, wherein the catalyst includes at least one of a Noble metal and a transition metal.

15. An NOx filter comprising:
a catalyst for oxidizing NO to NO_2;
a first support structure for the catalyst;
an alkali for adsorbing the NO_2; and
a second support structure for the alkali;
the first support structure spaced apart from the second support structure.

16. The filter of claim 15, wherein the catalyst includes manganese dioxide and copper oxide, and wherein the alkali material is potassium carbonate.

17. The filter of claim 15, wherein the catalyst includes at least one of a Noble metal, a transition metal, and iron.

18. A method of using the filter of claim 15, wherein the first and second vessels are operated at different temperatures or pressures.

19. Apparatus comprising

a CATOX; and

a split layer PTF including a catalyst integrated with the CATOX and an alkali downstream from the catalyst, the catalyst oxidizing NO to NO_2, the alkali adsorbing the NO_2.

20. An environmental control system comprising:

a CATOX;

an air conditioning system (ACS) downstream the CATOX; and

a post treatment filter downstream the CATOX, the filter including a catalyst and an alkali.

21. The system of claim 20, wherein the catalyst is midstream between the CATOX and the ACS, and the alkali is downstream the ACS

22. A method of reducing harmful agents in air, the method comprising:

passing the stream of air through a CATOX to oxidize organic agents, TICs and TIMs to carbon dioxide and water;

passing the stream through a catalyst, the catalyst including manganese dioxide; and

passing the stream through an alkali.